

AMENDMENTS TO THE CLAIMS

This listing of the claims below will replace all prior versions and listing of claims in this application.

1. (Currently amended) A method for inducing differentiation of cardiomyocytes from pluripotent stem cells ~~or cells derived therefrom~~, comprising
 - (1) culturing stem cells in a culture medium including a substance that inhibits BMP signaling ~~during the pre-differentiation stage~~ within three days before inducing differentiation and/or within the first ~~five~~ three days of the differentiation-inducing stage; and
 - (2) obtaining cardiomyocytes.
2. (Previously presented) The method according to Claim 1, wherein the step of culturing stem cells comprises a step of forming embryoid bodies by floating aggregation culture.
3. (Previously presented) The method according to Claim 1, wherein the step of culturing stem cells comprises a step of co-culturing with feeder cells.
4. (Previously presented) The method according to Claim 1, wherein the step of culturing stem cells comprises a step of plate culturing on a culture container.
5. (Currently amended) The method according to Claim 1, wherein said culturing occurs within the first ~~five~~ three days of the differentiation-inducing stage.
6. (Currently amended) The method according to Claim 1, wherein said culturing occurs ~~during the pre-differentiation stage~~ within three days before inducing differentiation.
7. (Currently amended) The method according to Claim 1, wherein said culturing occurs ~~during the pre-differentiation stage~~ within three days before inducing differentiation, and within the first ~~five~~ three days of the differentiation-inducing stage.
8. (Previously presented) The method according to Claim 1, wherein the substance that inhibits BMP signaling is a BMP antagonist.
9. (Previously presented) The method according to Claim 8, wherein the BMP antagonist is one or more selected from a group comprising Noggin, Chordin, fetuin, follistatin, sclerostin, DAN, Cerberus, gremlin, Dante and related proteins thereof.

10. (Previously presented) The method according to Claim 1, wherein the stem cells are mammalian-derived cells having the ability to differentiate into cardiomyocytes *in vitro*.
11. (Canceled)
12. (Previously presented) The method according to Claim 1, wherein the pluripotent stem cells are embryonic stem cells, cells with a similar morphology to embryonic stem cells, embryonic germ cells, or multipotent adult progenitor cells.
13. (Previously presented) The method according to Claim 1, wherein the pluripotent stem cells are embryonic stem cells.
14. (Canceled)
15. (Canceled)
16. (Canceled) ~~The method according to Claim 5, wherein said culturing occurs within the first three days of the differentiation-inducing stage.~~
17. (Canceled)
18. (Canceled) ~~The method according to Claim 7, wherein said culturing occurs during the pre-differentiation stage, and within the first three days of the differentiation-inducing stage.~~
19. (Currently amended) The method according to claim 18, wherein said culturing occurs ~~during the pre-differentiation stage within three days before inducing differentiation~~, and at the beginning of the differentiation-inducing stage.
20. (Currently amended) A method for inducing differentiation of cardiomyocytes from pluripotent stem cells ~~or cells derived therefrom~~, comprising
 - (1) culturing stem cells in a culture medium including a substance that inhibits BMP signaling within three days before the formation of embryoid bodies and/or within the first three days after the formation of embryoid bodies; and
 - (2) obtaining cardiomyocytes.

21. (Previously presented) The method according to Claim 20, wherein said culturing occurs within three days before the formation of embryoid bodies.
22. (Previously presented) The method according to Claim 20, wherein said culturing occurs within the first three days after the formation of embryoid bodies.
23. (Previously presented) The method according to Claim 20, wherein said culturing occurs within three days before the formation of embryoid bodies and within the first three days after the formation of embryoid bodies.
24. (Previously presented) The method according to Claim 23, wherein said culturing occurs within three days before the formation of embryoid bodies and immediately after the formation of embryoid bodies.